CLAIMS:

1. A modular patch antenna system comprising a first module and a second module, said first module comprising a first metal or metal-plated radiating layer, a second, middle dielectric layer, and a third metal or metal-plated ground layer, said second module comprising a frame that attaches to or fits onto the periphery of the first module, said frame comprising a dielectric layer, or the same three layers as said first module.
2. The antenna of claim 1, wherein the dielectric layer of said second module abuts the dielectric layer of the first module, and has an inner periphery substantially the same as the outer periphery of the dielectric layer of said first module.
3. The antenna of claim 1, wherein said second module comprises the same three layers as said first module, and wherein all three layers of said second module have substantially the same height as the corresponding layers of said first module.
4. The antenna of claim 1, wherein said first module has a circularly polarized gain, at elevation angles of about 40° or more in the sky, in the range of about +5 to about +6 dBic, providing favorable satellite signal reception performance.
5. The antenna of claim 1 wherein said first and second modules are attached to one another, and said antenna has a circularly polarized gain at 0° elevation angle of at least about –2 dBic, providing favorable terrestrial signal reception performance.
6. The antenna of claim 1 linked to a receiver adapted to receive radio broadcast signals with frequencies of at least about 2300 MHz.

7. The antenna of claim 1 wherein said radiating layer and said ground layer comprise metal or metal plating selected from the group consisting of Ag, Au, Cu, Ni, and Al.
8. The antenna of claim 1 wherein said dielectric layer comprises substances selected from the group consisting of Teflon, polytetrafluoroethylene, glass, ceramic, aluminum, a polymer, silica, and quartz.
9. The antenna of claim 1 wherein the dielectric layer of said second module comprises the same substance as the dielectric layer in said first module.
10. A module for a modular patch antenna system comprises a first metal or metal-plated radiating layer, a second, middle dielectric layer, and a third metal or metal-plated ground layer.
11. A module for a modular patch antenna system comprises a frame that attaches to or fits onto the periphery of a first module and comprises a dielectric layer or the same layers as the first module of said antenna.